

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: DONDLINGER et al.)	I hereby certify that this paper is
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Serial No.: 10/667,259)	Patent and Trademark Office
)	
)	on this date:
For: INFLATABLE DOOR SEAL)	
)	Dated: October 18, 2006
)	
Filed: September 19, 2003)	
)	
)	
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Examiner: Jerry E. Redman)	Attorney for Applicants

BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to the Notice of Appeal submitted on July 13, 2006 in connection with Patent Application Number 10/667,259, and in response to the Notice of Panel Decision mailed September 18, 2006, the applicants respectfully submit the following Appeal Brief in accordance with 37 CFR §41.37. This brief is timely filed as it is accompanied by a Petition for a one-month extension of time and the requisite fee.

I. Real Party In Interest

The appellants are unaware of any related appeal or interference.

II. Related Appeals and Interferences

There are no other appeals or interferences known to Appellants, Appellants' legal representative, or Assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. Status of the Claims

Claims 2-16, 34-41, and 43-49 are currently pending. The pending claims are presented in the Claims Appendix of this brief. The rejection of claims 2-16, 34-41, and 43-49 is hereby appealed, with claims 15, 40, and 48 being independent claims.

Claims 1, 17-33, and 42 have been cancelled without prejudice.

IV. Status of the Amendments

All claim amendments have been entered.

V. Summary of the Claimed Subject Matter

Although reference numerals and specification citations are inserted below in accordance with 37 C.F.R. 41.37(c)(1)(v), these references numerals and citations are merely examples of where support may be found in the specification for the terms used in

this section of the brief. There is no intention to in any way suggest that the terms of the claims are limited to these examples. Although, as demonstrated by the reference numerals and citations below, the claims are fully supported by the specification as required by law, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology as is done here to comply with rule 41.37(c)(1)(v) does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading limitations into the claims from the specification. In short, the reference numerals and specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

Independent claim 15 recites a door (10) exposed to an atmosphere of air comprising a door member (14), a door panel (18 or 20) that is movable relative to the door member (14), an inflatable seal (50) between the door member (14) and the door panel (18 or 20), wherein the inflatable seal (50) defines an air inlet (62), an air outlet (64), and an elongate air passageway (60) therebetween. [para 0023, 0026-0027]. The door (10) further comprises a blower (66) connected in fluid communication with the inflatable seal (50) such that the blower (66) forces the air in series flow from the atmosphere, through the air inlet (62), through the elongate passageway (60), through the air outlet (64), and back to the atmosphere, and thermal insulation (55), at least a portion of which is disposed inside the elongate air passageway (60). [para 0026-0027]

Independent claim 40 recites a door (10) comprising a door member (14), a door panel (18 or 20) that is movable relative to the door member (14), a pliable seal (50) between the door member (14) and the door panel (18 or 20), wherein the pliable seal

(50) defines an elongate passageway (60) therebetween, a fluid disposed inside the pliable seal, a fluid mover (66) having an inlet (62) and an outlet (64) in fluid communication with the elongate passageway (60), wherein the fluid mover (66) forces the fluid to circulate in series through the outlet (64), through the elongate passageway (60), through the inlet (62), and back through the fluid mover (66), and thermal insulation (55), at least a portion of which is disposed inside the elongate passageway (60). [para 0023-0027].

Finally, independent claim 48 recites a door (10) comprising a door member (14), a door panel (18 or 20) that is movable relative to the door member (14), a pliable seal (50) between the door member (14) and the door panel (18 or 20), wherein the pliable seal (50) defines an elongate passageway (60) therebetween, a fluid disposed inside the pliable seal (50), a heater (113) in heat transfer relationship with the fluid, and thermal insulation (55), at least of portion of which is disposed inside the elongate passageway. [para 0023-0027, 0035].

VI. Grounds of Rejection To Be Reviewed on Appeal

The grounds of rejection to be reviewed on appeal are as follows:

- Ground 1: Claims 3, 6-9, 11-16, 34-36, 38, 40, 41, 43, 44, 46, 48, and 49 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Number 3,341,974, issued to Ganzinotti (hereinafter “Ganzinotti”) in view of U.S. Patent Number 6,098,992, issued to Long et al. (hereinafter “Long”).
- Ground 2: Claims 2, 4, 5, 10, 37, 39, 45, and 47 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ganzinotti in view of Long and further in view of U.S. Patent Number 4,150,509, issued to Knap (hereinafter “Knap”).

VII. Argument

Ground 1: Claims 3, 6-9, 11-16, 34-36, 38, 40, 41, 43, 44, 46, 48, and 49 are patentable over Ganzinotti in view of Long under 35 U.S.C. § 103(a).

Of the claims rejected as unpatentable over Ganzinotti in view of Long, claims 15, 40, and 48 are independent claims. Each of these independent claims will be discussed below, with the most detailed discussion provided in conjunction with claim 15 because the arguments in support of the remaining independent claims are very similar to those for claim 15.

(1) Independent Claim 15 is patentable over Ganzinotti in view of Long.

As detailed above, independent claim 15 is generally directed to a door having an insulated, inflatable seal. Specifically, claim 15 recites, *inter alia*, a door having an inflatable seal between a door member and a door panel, wherein the inflatable seal defines an air inlet, an air outlet, and an elongate air passageway between the inlet and outlet. The claim further specifies that the inflatable seal includes thermal insulation, at least a portion of which is disposed inside the elongate air passageway.

Neither Ganzinotti nor Long, alone or in combination, discloses or suggests thermal insulation, at least a portion of which is disposed inside of an elongated air passageway. Rather, Ganzinotti is directed to a sealing joint for a refrigerator door heated to prevent the formation of frost. More particularly, Ganzinotti discloses the circulation of fluid in a hollow sealing joint to prevent the deposit of frost on its surface and on the areas adjacent the door and the door frame. Ganzinotti does not, however, disclose or suggest thermal insulation disposed within the sealing joint, a fact

acknowledged by the examiner in the Office action of March 14, 2006 (“Ganzinotti (‘974) fails to disclose a seal with thermal insulation” (page 3)).

The examiner attempts to cure the admitted deficiency of Ganzinotti by relying on Long. Specifically, the examiner alleges that “Long et al. (‘992) disclose [sic] a heated inflatable seal having thermal insulation,” and that “it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the seal of Ganzinotti (‘974) with thermal insulation as taught by Long et al. .” (*Id.*).

The examiner does not point to any specific structure in Long that constitutes the alleged thermal insulation disposed inside the passageway of an inflatable seal, likely because Long teaches no such structure. The applicants are left to assume that Long’s supposed thermal insulation is either structure 56 or structure 57, the two structures shown inside of Long’s seal. However, a review of Long’s written description reveals that structure 56 is a reflective shield, while structure 57 is a heating element connected to an electrical wire (58). (See col. 5, lines 3-15, and Fig. 5). One of ordinary skill in the art would appreciate that reflective shield (56) and heating element (57) are thermal conductors, not thermal insulators. The written description of Long supports this conclusion by disclosing that “a reflective shield, similar to that of Fig. 5, can be located adjacent the heating strip . . . to increase the heating of the bulb section.” (Col. 5, ll. 41-44, emphasis added). A material that increases the heating of an adjacent structure would be accurately characterized as a conductor of thermal energy, not an insulator of thermal energy. The written description of Long teaches that reflective shield (56) and heating element (57) are thermal conductors, not insulators.

The examiner has not pointed to any specific structure of Long that allegedly constitutes the thermal insulation, and he does not point to any support for his allegations in the written description, nothing that would lead one of ordinary skill in the art to the claimed invention. As noted above, Long actually teaches thermal conductors that perform the opposite function of the claimed thermal insulator. Thus, contrary to the examiner's conclusory allegations, Long fails to teach or suggest thermal insulation, at least a portion of which is disposed within an elongate passageway of an inflatable seal.

Because neither Ganzinotti nor Long discloses thermal insulation disposed, at least a portion of which is disposed within an inflatable seal, no combination of the two references can result in the claimed system. The MPEP clearly states that "the prior art reference (or references when combined) must teach or suggest all the claim limitations" in order to establish a *prima facie* case of obviousness. MPEP § 2142. The applicants respectfully submit that because neither Ganzinotti nor Long (individually) teaches or suggests thermal insulation disposed within at least a portion of an inflatable seal, the combination of the references cannot teach a system with the missing element. Thus, the prior art references do not teach or suggest all the claim limitations as is required to establish a *prima facie* case of obviousness under MPEP § 2142. Accordingly, it is respectfully submitted that independent claim 15 and the claims dependent thereon are in condition for allowance.

Independent claim 15 and claims 2-14 and 16, which depend therefrom, are patentable over Ganzinotti in view of Long.

(2) Independent Claim 40 is patentable over Ganzinotti in view of Long.

Independent claim 40 recites a door comprising a door member, a door panel that is movable relative to the door member, a pliable seal between the door member and the door panel, wherein the pliable seal defines an elongate passageway therebetween, and thermal insulation, at least a portion of which is disposed inside the elongate passageway. Claim 40 recites that the door further comprises a fluid disposed inside the pliable seal, and a fluid mover having an inlet and an outlet in fluid communication with the elongate passageway, wherein the fluid mover forces the fluid to circulate in series through the outlet, through the elongate passageway, through the inlet, and back through the fluid mover.

The recited thermal insulation, at least a portion of which is disposed inside the elongate passageway is substantially the same as that of claim 15, and the arguments asserted above in connection with claim 15 apply with equal weight to independent claim 40. As detailed above, neither Ganzinotti nor Long discloses thermal insulation disposed within at least a portion of an inflatable seal, and accordingly, no combination of the two references can result in the claimed door. The examiner offers the conclusory statement that Long discloses an “inflatable seal having thermal insulation” (Office action of March 14, 2006, page 3) but does not point to any specific structure in Long that constitutes the alleged thermal insulation disposed inside of the passageway of a seal. In fact, the written description of Long actually discloses that “a reflective shield, similar to that of Fig. 5, can be located adjacent the heating strip . . . to increase the heating of the bulb section.” (Col. 5, ll. 41-44, emphasis added). A material that increases the heating of an adjacent structure would be accurately characterized as a conductor of thermal energy,

not an insulator of thermal energy. Thus, Long does not teach a thermal insulator, at least a portion of which is disposed inside a seal, and the examiner acknowledges that “Ganzinotti fails to disclose a seal with thermal insulation” (*id.*). Therefore, independent claim 40 and claims 34-39 and 41, which depend therefrom, are patentable over Ganzinotti in view of Long.

(3) Independent Claim 48 is patentable over Ganzinotti in view of Long.

Independent claim 48 recites a door comprising a door member, a door panel that is movable relative to the door member, a pliable seal between the door member and the door panel, wherein the pliable seal defines an elongate passageway therebetween, and thermal insulation, at least a portion of which is disposed inside the elongate passageway. Claim 48 recites that the door further comprises a fluid disposed inside the pliable seal, and a heater in heat transfer relationship with the fluid.

Once again, neither Ganzinotti nor Long discloses thermal insulation disposed within at least a portion of an inflatable seal, and accordingly, no combination of the two references can result in the claimed door. The examiner offers the conclusory statement that Long discloses an “inflatable seal having thermal insulation” (Office action of March 14, 2006, page 3) but does not point to any specific structure in Long that constitutes the alleged thermal insulation disposed inside of the passageway of a seal. Long teaches no such structure, and the examiner acknowledges that “Ganzinotti fails to disclose a seal with thermal insulation” (*id.*). Therefore, independent claim 48 and claims 43-47 and 49, which depend therefrom, are not unpatentable over Ganzinotti in view of Long.

For the foregoing reasons, Appellants respectfully request that the § 103(a) rejections based on Ganzinotti and Long be overturned and the claims allowed.

Ground 2: Claims 2, 4, 5, 10, 37, 39, 45, and 47 are patentable over Ganzinotti in view of Long and in further view of Knap under 35 U.S.C. § 103(a).

(1) Dependent Claims 2, 4, 5, 10, 37, 39, 45, and 47 are patentable over the combination of Ganzinotti, Long, and Knap.

Claims 2, 4, 5, and 10 depend from independent claim 15, claims 37 and 39 depend from independent claim 40, and claims 45 and 47 depend from independent claim 48.

The deficiencies of the combination of Ganzinotti and Long, as it relates to independent claims 15, 40, and 48, have been discussed extensively in the preceding section, a discussion that need not be repeated here. Knap does nothing to cure these deficiencies, and the Office action does not suggest that it does, stating only that “Knap (‘509) discloses an inflatable door system for a pair of sliding/translating door panels within a floor sill (1).” (Office action of March 14, 2006, page 3). None of Ganzinotti, Long, and Knap teaches thermal insulation, at least a portion of which is disposed inside the elongate passageway of a seal, as is recited in each of the independent claims. Because none of the references discloses this element individually, no combination of the references can result in the claimed door. Accordingly, dependent claims 2, 4, 5, 10, 37, 39, 45, and 47 are not unpatentable over Ganzinotti in view of Long and further in view of Knap.

For the foregoing reasons, Appellants respectfully request that the § 103(a) rejections based on the combination of Ganzinotti, Long, and Knap be overturned and the claims allowed.

Respectfully submitted,

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VII. Claims Appendix

1. (Canceled)
2. The door of claim 15, wherein the door member comprises a second door panel that is movable.
3. The door of claim 15, wherein the door is associated with a wall having a doorway, and the door member is stationary and adjacent to the wall.
4. The door of claim 15, wherein the door is associated with a wall and a floor that define a doorway, and the door member comprises an upwardly facing surface of the floor.
5. The door of claim 4, wherein at least a portion of the air outlet is situated to discharge at least a portion of the air toward the floor, whereby the air discharged from the outlet may help keep the floor dry.
6. The door of claim 15, wherein the air inlet, the air outlet, and the elongate passageway remain in fluid communication with the atmosphere when the door is closed.
7. The door of claim 15, wherein the blower continues to force air through the air passageway when the door is open.
8. The door of claim 15, wherein the blower moves with the door panel.

9. The door of claim 15, further comprising a flexible hose that couples the blower to the inflatable seal.
10. The door of claim 15, wherein the door panel translates relative to the door member.
11. The door of claim 15, wherein the door panel includes an upper edge and a substantially vertical edge, and the inflatable seal includes an L-shaped section that is adjacent to the upper edge and the substantially vertical edge.
12. The door of claim 15, wherein the door panel includes a lower edge and a substantially vertical edge, and the inflatable seal includes an L-shaped section that extends along the lower edge and the substantially vertical edge.
13. The door of claim 15, wherein the air at the air inlet is warmer than the air at the air outlet.
14. The door of claim 15, further comprising a heater in heat transfer relationship with the air being forced through the inflatable seal.
15. A door exposed to an atmosphere of air, comprising:
 - a door member;
 - a door panel that is movable relative to the door member;
 - an inflatable seal between the door member and the door panel, wherein the inflatable seal defines an air inlet, an air outlet, and an elongate air passageway therebetween;

a blower connected in fluid communication with the inflatable seal such that the blower forces the air in series flow from the atmosphere, through the air inlet, through the elongate air passageway, through the air outlet, and back to the atmosphere; and

thermal insulation, at least a portion of which is disposed inside the elongate air passageway.

16. The door of claim 15, wherein the elongate air passageway includes some areas that are more thermally insulated than other areas of the elongate air passageway.

Claims 17-33 (Canceled)

34. The door of claim 40, wherein the fluid mover comprises a pump.

35. The door of claim 40, wherein the fluid mover comprises a blower.

36. The door of claim 40, further comprising a heater in heat transfer relationship with the fluid.

37. The door of claim 40, wherein the door member comprises a second door panel that is movable.

38. The door of claim 40, wherein the door is associated with a wall having a doorway, and the door member is stationary and adjacent to the wall.

39. The door of claim 40, wherein the door is associated with a wall and a floor that define a doorway, and the door member comprises an upwardly facing surface of the floor.

40. A door, comprising:

a door member;

a door panel that is movable relative to the door member;

a pliable seal between the door member and the door panel, wherein the pliable seal defines an elongate passageway therebetween;

a fluid disposed inside the pliable seal;

a fluid mover having an inlet and an outlet in fluid communication with the elongate passageway, wherein the fluid mover forces the fluid to circulate in series through the outlet, through the elongate passageway, through the inlet, and back through the fluid mover; and

thermal insulation, at least a portion of which is disposed inside the elongate passageway.

41. The door of claim 40, wherein the elongate passageway includes some areas that are more thermally insulated than other areas of the elongate passageway.

42. (Canceled)

43. The door of claim 48, wherein at least a portion of the heater is disposed inside the elongate passageway.

44. The door of claim 48, wherein the fluid is pressurized.

45. The door of claim 48, wherein the door member comprises a second door panel that is movable.

46. The door of claim 48, wherein the door is associated with a wall having a doorway, and the door member is stationary and adjacent to the wall.

47. The door of claim 48, wherein the door is associated with a wall and a floor that define a doorway, and the door member comprises an upwardly facing surface of the floor.

48. A door, comprising:

a door member;

a door panel that is movable relative to the door member;

a pliable seal between the door member and the door panel, wherein the pliable seal defines an elongate passageway therebetween;

a fluid disposed inside the pliable seal;

a heater in heat transfer relationship with the fluid; and

thermal insulation, at least a portion of which is disposed inside the elongate passageway.

49. The door of claim 48, wherein the elongate passageway includes some areas that are more thermally insulated than other areas of the elongate passageway.

IX. Evidence Appendix

No evidence under 37 C.F.R. § 1.130, 1.131, or 1.132 is being relied upon. The evidence relied upon is reflected in the following table.

Reference	Entered in Record
Ganzinotti U.S. Patent 3,341,974	See PTO-1449 submitted by applicant in Information Disclosure Statement on March 4, 2005, considered by Examiner in the first Office action.
Long U.S. Patent 6,098,992	See PTO-892 mailed by the PTO on June 24, 2005, considered by Examiner in the first Office action.
Knap U.S. Patent 4,150,509	See PTO-892 mailed by the PTO on June 24, 2005, considered by Examiner in the first Office action.

X. Related Proceedings Appendix

There are no proceedings related to this one.